

T

R

PROCEEDINGS
OF THE
THIRD ANNUAL GENERAL MEETING
OF PROPRIETORS OF THE
ST. LAWRENCE AND ATLANTIC
RAIL-ROAD,
HELD IN MONTREAL, ON THE 19TH JANUARY, 1848;
WITH
REPORT OF THE DIRECTORS,
AND
CHIEF ENGINEER.

Montreal :
PRINTED AT THE MONTREAL HERALD OFFICE.

1848.

SA

I
in t
Cor
Cor
pur

T

Me

Mo

R
Tho

T

Mo

R
they

T

was

ST

T

Gen
preli
near
Acto
year
durin

SAINT LAWRENCE AND ATLANTIC RAILROAD COMPANY.

Proceedings of the Annual General Meeting of the Proprietors in the Capital Stock of the St. Lawrence and Atlantic Railroad Company, held on Wednesday, the 19th January, 1848, at the Company's Office, No. 18, Little St. James Street, in this city, pursuant to notice.

The Hon. A. N. MORIN, President of the Company, called the Meeting to order.

Moved by JOHN TORRANCE, Esq., seconded by JOHN BOSTON, Esq. :

Resolved 1—That the Honble. Mr. Morin do take the Chair, and that Thomas Steers, Esq., act as Secretary.

The Secretary read the advertisement calling the Meeting.

Moved by JOHN BOSTON, Esq., seconded by JOHN FROTHINGHAM, Esq. :

Resolved 2—That William Molson and Charles Phillips, Esquires, be, and they are hereby elected by this meeting as Scrutineers.

The Secretary then read the Annual Report as follows, which was afterwards read in French by the President :—

ANNUAL REPORT OF THE DIRECTORS

OF THE

ST. LAWRENCE AND ATLANTIC RAILROAD COMPANY.

The Report submitted to the Stockholders at their last Annual General Meeting, detailed the measures adopted by the Directors preliminary to the construction of the road from the St. Lawrence, near the Village of Longueuil through St. Hyacinthe to a point in Acton, distant about 45 miles from this city, to be completed in the year 1848, in accordance with the resolutions of the proprietary during the fall of the then past year.

At the period of that meeting, contracts were entered into for the grading of the road to St. Hyacinthe with responsible parties, and subsequently to Acton, and from thence it was secured to Sherbrooke, at the option of the Company, whenever their resources warranted such further extension; contracts were also made for the construction of a most important feature in the road—the bridge over the river Richelieu at the rapids of Belœil.

Previously to taking possession, it became necessary to purchase the right of way from the different proprietors of land along the line, which, in the first 30 miles, has involved a settlement with no less than 304 individual cases, arising from the nature of the survey of the land into long narrow farms, and the line of road almost invariably crossing them obliquely.

The Directors have, however, the gratification to report, that 279 out of the 304 claimants have been settled with, and conveyances of the right of way to that extent are now in possession of the Company; including the termini on the St. Lawrence and at St. Hyacinthe, and in the unclosed cases the terms are agreed upon, and it only remains to make the payments and execute the deeds in 25 cases, to complete the full legal possession by the Company of the road way from the St. Lawrence to St. Hyacinthe, with the necessary stopping places along the route. This very arduous and responsible duty was devolved by the Board in addition to his ordinary services upon the Resident Engineer, R. T. Bailey, Esq., and they have every reason to be satisfied with the ability and zeal which that gentleman has manifested in its prosecution.

The Directors refer to the Report of the Land Commissioner laid on the table, for the detail of purchase and expenditure on Lands and Stations.

The Board have further to state relative to the right of way, that the British American Land Company, through their Commissioner, A. T. Galt, Esquire, have engaged to make over to this Corporation, gratuitously, such land through their territory as may be found necessary to the Right of Way, Depots, Stopping Places, &c., with the exception of the Town of Sherbrooke, and the Directors take this opportunity to express their high sense of this unsolicited and generous donation.

Many circumstances combined to prevent that vigorous prosecution of the work during the past season intended by the Board, and for which they had previously made every necessary preparation.

They were disappointed in the negotiation of a loan in England ; great difficulty was experienced in the collections in this country, and the hostile position assumed by the Stockholders in England precluded the Board from expecting financial assistance from further calls on the stock in that country for immediate purposes ; nor were they able to avail themselves of the balance remaining in the hands of the London Committee, who refused to place the amount at the disposal of this Corporation until they shall be relieved from personal liability by legal decision on the pending actions.

This decision, it is expected, will be received during the present month.

The Board, under these accumulated difficulties, deemed it prudent to curtail the anticipated expenditure, and accordingly made arrangements with the Contractors to limit their proceedings in a ratio with the finances of the Company, and the Directors have the gratification to state, that their wishes were promptly met by the Contractors, and without damage to the Corporation.

Acting on these principles, the Directors have urged the vigorous prosecution of the work in the first division between the St. Lawrence and Richelieu Rivers—a distance of 16 miles. The rails for that distance are imported and stored at the Company's terminus on the St. Lawrence, and the timber for the superstructure is deliverable in early spring ; the grading is in an advanced state, and the Directors have every reason to be confident, that it will be in full operation in August next. It is expected that the opening of this Division will greatly facilitate the prosecution of the works on the further sections.

While anxiously desirous to complete the first Division, the Board have not confined the operations of the Contractors exclusively thereto, but have continued at the same time to forward the work from the River Richelieu to St. Hyacinthe, the grading of which Division is in a state of much forwardness ;—the heavy embankments on the easterly side of the River Richelieu to receive

the bridge, being finished ; and the principal masonry, including very important and expensive stone culverts in the different ravines, occurring at the base of the Rouville Mountain, in gaining the table land from the river, being completed.

The causeway across the valley of the Huron river, is in course of construction, and will be completed, or nearly so, during the winter ; in fact, the principal and most expensive part of the work on the second division is finished. There are five miles on the easterly side of the Richelieu river, graded, out of fourteen—the length of the second division.

The timber for the superstructure of this division is contracted for by responsible persons deliverable in August next ; and the fencing of the road, including gates, from the St. Lawrence to St. Hyacinthe, is also under contract, to be completed at the same period, on very advantageous terms to the Company.

The Directors have made these arrangements, with the view of being enabled to place this division also in operation in December next, or January of 1849, should the finances of the Company permit ; and that it be deemed advisable to import the necessary iron (1600 tons) during the approaching summer.

It was expected that the bridge over the Richelieu river would have been completed during the past season, but the high water last spring prevented an early commencement of the work, and a difficulty in obtaining labourers during the summer, still further retarded the operations of the Contractor.

The foundation of the abutments, and of all the piers with the exception of two, are laid, and the masonry raised ten feet above low water ; nearly all the stone necessary for completing the masonry is on the spot and dressed, with a large proportion of the timber and iron for the superstructure ; and no doubt is entertained that this most important work will be completed in time for opening the road in August next.

The surveys for the prolongation of the road were commenced in May last at St. Hyacinthe, by one party under the command of W. H. Vining, Esquire, a gentleman of much experience, and have continued during the season to the 1st of December last. The results of the survey have been very satisfactory, clearly demonstrating that no impracticable obstacle opposes the junction of the

St. Lawrence and Atlantic Rail Road at the boundary line, but on the contrary, that favorable gradients can be obtained. It is the opinion of the Engineers, that further examinations will produce still more favorable results. Two routes have been surveyed, and the third remains to be explored previously to a final location.

The aggregate length of line surveyed during the season, has been about 150 miles, of which 70 miles are approximately located, 34 miles definitely located, and the remainder experimental lines.

The importance of the branch of the road from Sherbrooke to Stanstead, in connection with the Connecticut and Passumpsic Rivers Railroad Company, being fully recognized, a survey was made during the season by order of the Directors, and the most favourable issue reported as to the practicability of its construction, whenever the Company are in funds to commence operations.

These preliminary measures and inquiries have induced much expense. The Directors consider, however, that it is an outlay which is now returning, and will hereafter return, great advantages to the Corporation as regards the character and capacity of the road when completed, and in the assurance that every advantage is and will be taken, of the natural capabilities of the country through which it passes.

The Directors beg reference to the Report of the Chief Engineer, A. C. Morton, Esq., laid on the table, for a more detailed statement of the work, as well as of the operations of the survey.

Statement of total Disbursements by the Saint Lawrence and Atlantic Railroad Company, to 30th November, 1847.

PERMANENT DISBURSEMENTS FOR CONSTRUCTION.

For expenses of Engineer Department, including Instruments,	£ 6386	12	6
For Lands and Stations, including payment of Agents, Notaries for engrossing Deeds, Travelling, &c, ...	5501	15	1
For Iron, including Freight, Insurance, Agency, Duty Storage, &c.	22825	2	0
For Grading, including the Bridge over the Richelieu River,	26132	12	10
For Freight and Platform Cars,	33	12	0
	£ 60879	14	5
For Office expenses, including Furniture, Salaries, Postage, Fuel, Stationery, &c.,	1439	0	9
For Advertising and Printing,	350	1	4
For expenses of Mr. Galt's mission to England, travelling from 14th June to 31st December, ...	303	3	5
For Printing, Engraving, Advertising, &c.	474	2	9
Sterling, at the current rate of Exchange when paid,	777	6	2
	963	14	9

For Contingencies, including professional and incidental charges, ...	319 6 0
Balance at profit and loss,	18 6 7

DISBURSEMENTS OF LONDON COMMITTEE.

Amount paid as per Accounts rendered 31st Dec., 1843, and 3d February, 1847.

For Advertising, Printing, Agency, Law expenses, &c.	
Sterling,	£ 1216 9 3
For Premium paid on purchase of £10,000 Exchequer Bills,	318 15 0
For amount re-paid Shareholders (to December, 1846) who had not signed the subscription of Shares Book, being the return of the deposit of £4 stg. on £1605 shares, less 7s. 6d. per share deducted for expenses, pursuant to resolution of Stockholders in Canada, of	5818 2 6
For interest paid Bankers on Loan of £1000 sterling, the Company receiving the interest on Exchequer Bills over-purchased to that amount by the London Committee,	24 18 8
Sterling,	7378 5 5
At 8 per cent premium of Exchange, equal in Currency to	8853 18 6
For purchase by London Committee of £10,000 Exchequer Bills, £6,000 of which were afterwards sold out, leaving a balance of Exchequer Bills in the hands of the London Committee, £4000 sterling, at 8 per cent premium, Exchange,	4800 0 0
For Cash in hands of London Committee, £615 15s. sterling, at 8 per cent do.,	738 18 0
For Bills Receivable in Bank of British North America,	4148 13 9
	£82,511 13 9

RECEIPTS.

By Cash & Bills Receivable on account of 1st Instalment,	15483 4 0
By do do 2nd do	12748 16 0
By do do 3rd do	11544 0 0
By do do 4th do	9119 2 0
By do in advance of calls,	48895 2 0
By do for Interest,	3964 12 0
By do received by the London Committee, on account of the 1st Instalment of £4 stg. on 2633 Shares, £10,532 stg., at 8 per cent premium, Exchange,	272 19 11
By do received by London Committee for premium on sale of £6,000 Exchequer Bills, sterling,	12638 8 0
By do received by London Committee, Interest on Investment, £8,204, at 3 per cent,	81 15 0
By do received by London Committee, Interest on £10,000 Exchequer Bills,	159 8 2
Sterling,	220 17 3
Exchange, at 8 per cent premium,	462 0 5
By Stock, the Capital of the Company, payable to Black, Wood & Co., being 25 per cent of their estimate for Grading, held as security for the due performance of their Contract	554 8 6
By Stock, the Capital of the Company, payable to Boody, Stone & Co., held under similar arrangements	4000 0 0
By amount due Black, Wood & Co., balance of estimate to 30th November, 1847	2375 0 0
	1859 0 0

By amount due Boody, Stone & Co., balance of estimate to 30th November, 1847	1039	0	0
By amount due A. C. Morton, Esq., Chief Engineer, being balance of account current of the Engineer Department for November, ...	289	11	10
By Cash advanced by Bank of British North America, on the security of Notes lodged in that Institution	3247	12	8
By Cash due City Bank at Sherbrooke,	61	4	0
By Cash due Bankers in London, advanced to London Committee for purchase of £10,000 Exchequer Bills, at 8 per cent p. Ex. ...	1200	0	0
By Amount due on Land and Stations, payable (with interest annually) in 1852, secured on Deeds to Land Proprietors	1321	1	8
By Amount due the Custom House, for Bonds on Iron	793	13	2
	£82,511 13 9		

THOMAS STEERS,

Treasurer.

The application to the Legislature for an act to amend the Act of Incorporation, alluded to in the last Annual Report, was duly made, and received the Royal assent. Amongst the most prominent of its provisions, are a right to borrow money, to charge interest upon the calls in default, and to pay interest on the paid-up capital. It contains rights of ferriage to and from Longueuil, to and from the city of Montreal, and confers the privilege of using the contemplated bridge over the St. Lawrence, and having a terminus in this city, should the bridge be completed.

The act was in its passage through the Legislature, trammelled with a restrictive clause, relative to the guage, which for a period created much difficulty, but which has happily been disposed of by the action of His Excellency the Governor General in Council, and the guage is thereby finally determined at 5 feet 6 inches, pursuant to the original convention entered into between this and the Atlantic and St. Lawrence Railroad Company.

As connected with the act, it may not be irrelevant to invite attention to the proceedings of the Special General Meeting of the Stockholders, called on the 20th September last, under its provisions, relative to the payment of interest, and to state that the Treasurer is prepared to pay at this office, interest at the rate of 6 per cent. per annum, on the paid-up capital, to such of the Stockholders as are duly entitled, and as provided for by the resolutions of that meeting.

The Directors have to record no addition of Stockholders to their subscription lists, which stand precisely in the same position as at the last Annual General Meeting, while they regret that most

unexpected commercial distress has for the present rendered it imperative to stay further calls upon the Stockholders, until the spring.

This determination, the Board will endeavour to adhere to, and under much inconvenience, they are collecting the outstanding balance of the four instalments called in, to meet the current expenditure.

The Directors report that, with the view of giving an opportunity to the inhabitants of the Eastern Townships, to avail themselves of the advantages the Railroad when finished to Acton will present over the present ordinary routes to Montreal, application was made to the Government for a survey of certain roads, being leading communications through the most populous portions of the Eastern Townships, having a common junction at Acton, and that an assurance has been received that the survey will be made, and an estimate of the cost returned.

These roads, when completed, will have the effect of lessening the present cost of transportation from that section of the country at least one-half, in addition to the saving of time, which at present is a heavy per centage on the trade of the townships with this city.

In view of the anticipated business of the Road, the Directors state with pleasure, the fact, that the Connecticut and Passumpsic Rivers Railroad Company are fast approaching towards the provincial line, and it is hoped that at no distant day that Railroad will be connected with this route at Stanstead.

As respects the principal terminus of this Railroad at Portland, the Directors are happy to know that accommodations of the most ample character are to be found at the Atlantic terminus, and freight may be transferred to and from the railway cars to and from vessels, without further removals.

Allusion was made in the last Annual Report to the movement in Maine, having in view the extension of the road in the direction of the Lower Provinces—the friends of the enterprise will be gratified on learning that the project has been pushed forward in Maine with the greatest success.

At a point 27 miles on this side of Portland, an embranchment of the great artery takes place, and the Eastern line is under contract to Waterville, 55 miles from that point, a portion of which is to be

opened during the coming season, and completed to Waterville in 1849.

Its further extension to Bangor may be confidently assumed, and the Directors are informed, that an application has already been made for a right to extend it from Bangor to the Boundary of Maine, in the direction of the city of St. Johns, New Brunswick.

Since the last Annual Report of the Directors, events have occurred which must clearly demonstrate to every one familiar with the business of Canada, and more especially to the inhabitants of Montreal, the paramount importance to the interests of this Province, of the completion of the Railway to Portland.

A way to and from the Ocean at all seasons of the year, capable of successfully competing with other routes, is indispensably necessary to preserve the mercantile community from the ruinous effects of being forced to purchase at the prices of several months anticipation of their sales, which brings them into that season of the year in England, when speculations in the anticipation of a good or bad harvest, create a greater uncertainty than the calculations of any trade to make it commonly safe, ought to be subjected to.

It is painful to dwell upon the losses sustained by this community during the year just passed, from the want of this communication with the ocean—losses at least equivalent to one-half of the cost of the road; and the Board allude to them only with the view of showing, prominently, the practical benefits of the St. Lawrence and Atlantic Railroad, when completed.

Prospectively, they consider it to be the first step to secure the completion of the Quebec and Halifax Railroad, forming, as it will, a portion of that route for a distance of 70 miles from Montreal to Melbourne, and the connecting link towards Western Canada.

The suspension of the Corn Laws in consequence of the famine in Great Britain and Ireland, has shown by the operations of Free Trade in bread-stuffs, that Montreal will lose the principal part of the trade of the St. Lawrence, until her communications with the sea are perfected. Produce has been brought from Lake Erie to Montreal, and has reached New York through Lake Champlain and the Northern Canal the past season, at prices below the cost of transportation by the Erie Canal, occasioned by the extraordinary demand for transport, and the inability of the Erie Canal to forward it as rapidly as desired.

It may fairly be assumed, that other outlets, and of far greater capacity than the Erie Canal, are necessary to the growing trade of the West ; and that the extent of the necessity cannot at this present period be measured, for the resources of that country are boundless as the population may be ; and it is gratifying to the friends of this Province to feel, that, great as that increase may hereafter prove to be, the St. Lawrence and its improved Canals are equal to its conveyance, and that they are the natural outlet to the country of which the great lakes are the basin.

In connection with this highway toward the sea, a channel of communication is wanting, open at all seasons of the year, which may successfully compete in cheapness with all others, to make the city of Montreal the emporium of commerce for the inland waters, of which the St. Lawrence is the outlet.

The course of trade the present year has shown that, from Detroit to Montreal, in ordinary times, a barrel of flour may be brought for one shilling and sixpence currency, and the cost of laying it down at Portland by railway, need not exceed one shilling and sixpence more—making a total cost of three shillings per barrel. Added to this, there is the advantage by this route, that produce may be carried from Chicago to the Ocean, with but one transshipment, and that at Montreal, whereas no other route can probably be established, with less than three transshipments at least.

These facts must make it obvious to all who examine the question that the Railroad now in construction from this city to Portland, is the link necessary in the completion of this unequalled continuous communication to the sea, for its capabilities will be of the highest order, and its geographical position will enable it to compete successfully with any other road which can be constructed from the waters of the St. Lawrence to the Ocean.

It is the intention of the Directors to petition the Legislature of the Province during its next session for public assistance to this undertaking, upon such plan as may seem meet to that body, as the Directors, in common with the Colonial public on this Continent, feel that, without Railroads these Colonies must sink into comparative insignificance ; and the Board point to the neighbouring Colonies of New Brunswick and Nova Scotia for examples of

activity worthy of imitation, as well as to the Colonies in the East and West Indies, where Railroads are commencing, and are considered indispensable in the present era of progression.

The Directors would again record their undiminished confidence in the eventual success of the undertaking, and that it will amply remunerate the Stockholders as an investment.

All which is respectfully submitted.

A. N. MORIN,

Chairman.

Office of the St. Lawrence & Atlantic Rail Road Company, }
Montreal, 19th January, 1848. }

Moved by JOHN TORRANCE, Esq., seconded by JOHN BOSTON, Esq.:

Resolved 3—That the Report now read be approved of, adopted, and printed in such form as may be deemed expedient by the Directors.

Moved by JOHN TORRANCE, Esq., seconded by JOHN BOSTON, Esq.:

Resolved 4—That John G. McKenzie and Thomas Tait, Esquires, be, and they are hereby, duly elected Auditors of Accounts of this Company, for the ensuing year.

The Hon. A. N. MORIN being requested to leave the Chair, and JOHN FROTHINGHAM, Esq., called thereto,

The Hon. Mr. M'GILL moved, seconded by A. T. GALT, Esq.:

Resolved 5—That the thanks of the Proprietors be, and they are hereby, tendered to the Honorable A. N. Morin, for his able and energetic services as President of the Corporation, and that that gentleman be requested to accept the sum of Two Hundred and Fifty Pounds, as an acknowledgement for the time and attention he has devoted to their business during the past year.

The Honorable Gentleman having returned thanks for the compliment thus paid him, again took the Chair.

The Scrutineers having duly scrutinized the Ballot for Directors, returned a Certificate that Major T. E. CAMPBELL, ALEX. T. GALT, and SAMUEL BROOKS, Esqrs., were elected, pursuant to By-Laws and Act of Incorporation, in the room of the three Directors who retired by rotation.

The Meeting adjourned.

THOMAS STEERS,

Secretary.

COMPANY'S OFFICE, }
Jan. 19, 1848. }

{ ENGINEER DEPARTMENT,
Saint Lawrence and Atlantic Rail Road,
MONTREAL, JANUARY 10, 1848.

HON. A. N. MORIN,

President of the St. Lawrence & Atlantic Rail Road Company.

SIR,

I have the honor to submit my second Annual Report of the operations of this department.

The Montreal Division of your road extending to the Township of Acton, a distance of 45 miles, was placed under contract in the fall of 1846, but the season had so far advanced as to allow of but a small amount of work being done before its close.

At the commencement of the past season, measures were early taken for the advancement of the work, under the immediate superintendence of R. T. Bailey, Esq., resident Engineer, who had made the location.

The late and unfavorable opening of the spring, the scarcity of laborers, and the financial affairs of the Company, during the past season, did not permit so vigorous a prosecution of the work as was desirable,—yet very good progress has been made.

Under these circumstances it was deemed advisable to place the force principally on the work of the first 16 miles extending from the St. Lawrence to the Richelieu river, in order that the embankments might become consolidated, and the laying of the track be commenced early the coming season. This work is in an advanced state, and may be completed and opened for use in the month of August next.

The grading on the east side of the Richelieu river will, in the meantime, be urged forward and completed at the same time, and the extension of the track on this part of the line will be much facilitated by the use of the road for transporting building materials.

A considerable amount of this grading and masonry is, however, already completed, embracing the heavy embankment forming the east approach to the Richelieu river bridge, and the culverts and embankments required in crossing several large ravines at the base of Belcil Mountain. The work is in progress on other sections of the road, and there are now about 5 miles of the grading completed

on the east side of Richelieu river. On the heavier portions of the work, the grading will be continued through the winter.

The Richelieu river bridge is an important structure, and a large amount of work has been done upon it. This bridge consists of six spans of 150 feet each, and a draw near the west shore of 55 feet span. The superstructure is to be erected on the plan of Howe's improved patent, having iron bearings, and to be of the decked form, the track resting on the top chords. The wood work is designed for a single track only, the trusses being placed 12 feet apart in the clear, giving a top width of about 18 feet.

The masonry is designed for a double track, and when the second track is required, it may be added by adding the third truss to the superstructure.

The foundations of the piers and abutments are from 45 to 50 feet below the grade of the road, and in water varying from 3 to 8 feet in depth at low water.

There are 6 piers and 2 abutments, including the masonry for the draw; the foundations of the abutment, and of all the piers except two, are in, and the masonry carried up, ten feet above low water. Nearly all the stone required for completing the masonry are dressed, and delivered ready to be laid in the spring.

A large portion of the timber and iron required for the superstructure is delivered, and the whole work, it is confidently believed, will be finished by August next.

The country through which the first Division of your road is located, presents a uniform and even surface, and is generally in a high state of cultivation.

The road-bed is mostly on embankment varying from 3 to 6 feet in height, which is formed generally with earth excavated from side ditches.

This gives a dry and permanent road-bed, and facilitates the removal of snow from the track in the winter. The grading is for a single track, having a width of road-bed in excavations of 22 feet, and on embankment 15 feet, with slopes in the ratio of one and a half feet base, to 1 foot rise.

The alignment of this Division of the road may be considered highly favorable, nearly 95 per cent. of the whole distance being straight line.

The following is a synopsis of the grades :—

Level	13.20 miles.
From 1 to 10 feet per mile.	12.39 "
Do. 10 to 20 " " "	5.79 "
Do. 20 to 30 " " "	4.69 "
Do. 30 to 40 " " "	3.82 "
Do. 40 to 45 " " "	5.11 "

Total distance 45 "

The track of your road consists of longitudinal sills 8 x 12 inches square, embedded in gravel or broken stone. Cross ties of Tamarack timber, $2\frac{1}{2}$ inches thick and 6 inches wide, are inserted in the upper side of the sills by a dovetail joint, and retained in their places by wedges of the same description of timber.

The ties have a shoulder of three-quarters of an inch abutting against the inner side of each sill, which, with the action of the wedges, draws the whole together to an exact line, and effectually prevents any spreading of the track.

When it is required to renew ties, it is only necessary to knock out the wedges, remove the defective tie, and insert others without disturbing the iron.

The surface of the tie and the longitudinal sill is on the same plane which gives a continuous bearing for the rail.

The rail is of the bridge pattern, weighing 63 lbs. per yard, and is laid along the centre of the sills, to which it is spiked at intervals of about 3 feet. The joints of the rails are secured by cast iron chairs, 5 inches wide, 8 inches long, and three-quarters of an inch in thickness, weighing about 11 lbs. each.

There are three upward projections in the chair, the two outer ones being equal to the thickness of the base of the rail : the middle projection is one inch in height, and fits into the cavity in the centre of the rail.

The chairs are fitted into the sill even with its surface and spiked down, the head of the spikes lapping over the base of the rail, which, together with the projection in the chair, prevents any displacement of the joints.

This form of fastening permits the removal of a rail without disturbing the adjoining one or the chair. To provide for the changes

in the length of the bars, caused by variations of temperature, the extremes of which are very great in this climate ; also, to guard against a troublesome longitudinal movement of the rail, always experienced on railways, a centre plate of about half the weight of the joint chair is inserted. This plate has a seat for the rail similar to the chair, having two inward projections fitting into openings cut in the base of the rail of corresponding size.

This retains the rail in its position longitudinally, while it requires the movement from change of temperature to take place from and towards the centre of each rail, provision being made for this by leaving sufficient space between the ends when the iron is laid.

This description of track is less liable to derangement from frost, and costs much less for repairs, than a track with cross sills. The motion of the cars is easier and more agreeable to passengers ; there is less danger of accidents, and when they do occur, are usually less disastrous. The cost of repairs of machinery is also materially diminished by the smooth, uniform, and slightly-elastic surface, afforded by the continuous bearing.

All the timber required for the track of 30 miles of road, has been contracted for, to be delivered at different points on the line, and at such periods as will allow the whole to be laid the coming season.

There are 1600 tons of Iron delivered, which is sufficient for 16 miles of track, and the remainder can be ordered at such time as the progress of the work will require its use.

The business of acquiring the titles to land for road-way and stations, having been performed by the Engineer Department, it is proper that I should here allude to the subject.

In December, 1846, Mr. Bailey was appointed by the Board, Commissioner for negotiating for the right of way, and securing to the Company in due form, titles to all the lands required for the purposes of the road.

The duties of this office have been performed by Mr. Bailey, in addition to his duties of resident Engineer of the first Division of the road.

From the report of that gentleman on this subject, it will be perceived that this has been a most arduous and responsible service ;

unusually so, owing to the great number of proprietors to be settled with, there being 304 in a distance of 30 miles. The farms are usually long and narrow, and the road crosses them in the most unfavourable manner.

Under these circumstances, it becomes necessary to construct numerous crossings, passage-ways, gates, &c., which rendered the final settlement of all claims not only difficult and tedious, but added materially to the expense of construction.

I have the pleasure to state, that, of the 304 claimants, 279 have been settled with, and conveyance made to the Company, and in nearly all of the remaining cases, the terms upon which the Company are to receive the land, have been agreed upon. Little, therefore, remains to be done to close up the whole business of right of way for 30 miles of road, except the making of the payments, and the execution of the deeds for the remaining cases.

Of this distance, 23 $\frac{7}{10}$ miles have been settled by negotiations with the proprietors, and the remainder by Arbitrators; the average cost of this distance, including notarial and all other expenses, has been £9 per arpent.

The total cost of all the land required for roadway, and stations for 30 miles of road, including all expenses, will be £9215 15s., which does not vary materially from the original estimated cost.

A large amount of ground has been purchased for the St. Lawrence terminus, which will afford ample accommodation for the most extended business.

The building of the fence and gates required for this 30 miles of road, have been contracted for on favorable terms.

The total disbursements made through this Department, up to the close of the fiscal year, was £30,529 2s. 8d.

Plans, specifications, &c., are completed for the wharf at the terminus, for depot buildings, and the various descriptions of cars required for the business of the road.

I would propose that the buildings should be of a cheap character; of sufficient dimensions to accommodate the anticipated business of the road for several years, reserving the means of the Company for the more important purpose of extending the road into the country.

As the road is extended, and its business increased, enlarged

buildings of a more permanent character may be erected, suited to the wants of the road when completed.

The surveys for the extension of the road, were commenced in May last, at St. Hyacinthe, under the superintendence of W. H. Vining, Esq., an Engineer of much experience, and continued till the 1st of December.

It was deemed advisable to organise but one party of Engineers, which should be under the immediate direction of a competent Engineer, who should inspect personally the whole country, as the surveys advanced.

These surveys cover a great extent of country, the whole of the main line of the road having been surveyed to the Boundary line at Canaan, Vermont, and also the branch to the line at Stanstead.

The nature of the country is such between the Yamaska and St. Francis Rivers, as to require a number of trial lines to be run, with a view to a selection of the most favourable.

The road is straight after attaining the table land on the east side of the Richelieu River, to a point about three miles east of St. Hyacinthe, giving a tangent, passing this place and crossing the Yamaska River, of nearly fifteen miles in length.

From this point, and from St. Hyacinthe, several lines have been surveyed, extending the road on a straight line, to a point in the Valley of Moose River—a distance of about 16 miles, crossing the country between the Yamaska and Black Rivers, and the latter stream three quarters of a mile above its most northern bend.

These lines cross the Black River twice, and require the channel of Moose River to be changed slightly at two points.

It is desirable to trace other lines across this section of country, one of which should pass the northerly bend of Black River, with a view of avoiding the construction of the two bridges required for the present lines. Other portions of the country between Moose River and the St. Francis, require some further explorations, to determine on the best ground for the final location of the road. This, however, with our present knowledge of the features of the country, may soon be accomplished.

The examinations of this year, demonstrate conclusively, that still further improvements may be made on this part of the line, which will result in a material reduction of the gradients and the cost of the work.

The surveys have been extended through the valley of the St. Francis, and a final location of the road made for a distance of 22½ miles. Considerable curvature is required for this part of the line, but the grades are generally easy, and the work, with some exceptions, is not of an expensive character.

The line leaves the St. Francis valley at Lennoxville, thence the valleys of the Massawippa, Moes, Coaticook and Leach, streams, are followed by the various routes surveyed to the boundary line of the United States.

The diverging point of these several lines is about 1½ miles south of Lennoxville. From this point to the Boundary, the country is more irregular, requiring heavier curvatures, gradients, and work, than on other portions of the road. It is on this Division that the more elevated section of country, dividing the waters of the St. Lawrence and the Connecticut rivers, is crossed.

There are several routes by which the Boundary may be reached, two of which have been examined, and also the branch line to Stanstead.

The remaining main routes, and several subordinate ones, connecting those already surveyed, must be examined before a decision can be made as to which the preference should be given for the final location of this part of your road.

From the character of the country, it became necessary to survey many of these lines with great care, for the purpose of comparison; and in case of their final adoption, they may be regarded as actual locations.

The aggregate length of line surveyed the past season is over 150 miles, of which 70 miles are approximately located, 34 miles definitely located, and the remainder experimental lines.

For the accomplishment of so great an extent of surveys by only one party, I am indebted to the energy and skill of Mr. Vining, and the gentlemen acting as his Assistants.

The maps, profiles, and estimates, are in progress, and as soon as they are completed, I shall be able to submit for your consideration the details and results of these surveys.

I have the honor to be,

SIR,

Your obedient Servant,

A. C. MORTON,
Chief Engineer.

St.
224
line,
cep-

the
ams,
line

miles
the
ents,
sion
s of

be
anch

con-
sion
the

rvey
son ;
ctual

over
miles

only
and

n as
tion

ter.